Amendments to the Claims:

This listing of the claims replaces all prior versions and listing of the claims in the present application.

Listing of Claims:

1-2. (canceled)

3. (currently amended) An appearance inspection apparatus comprising:

a memory that stores image data of an appearance of an inspection target;

a thread generator that generates k sets of n (k is a positive integer and n is an integer equal to or greater than 2) threads in each of which procedures are described for respectively processing the image data in n sub-regions obtained by dividing one inspection region on the image data stored in said memory and storing a processing result into said memory; and

a plurality of CPUs which executes said k sets of threads generated by said thread generator in parallel, respectively,

~~The appearance inspection apparatus according to claim 2,~~ wherein said thread generator further generates m (m is a positive integer) threads in each of which a procedure is described for collectively processing the image data in said n sub-regions, and ~~said plurality of CPUs execute said k sets of said n threads generated by said thread generator in parallel,~~

3

~~respectively, and~~ one of said plurality of CPUs singly executes said m threads generated by said thread generator.

4. (original) The appearance inspection apparatus according to claim 3, wherein said n and m are determined based on a kind of image processing to be executed or a size of said inspection region.

5. (original) The appearance inspection apparatus according to claim 3, wherein said n and m are determined based on a result of an actual measurement of processing times of said plurality of CPUs under an arbitrary combination of n and m.

6. (currently amended) An appearance inspection apparatus comprising:

a memory that stores image data of an appearance of an inspection target;

a thread generator that generates k sets of n (k is a positive integer and n is an integer equal to or greater than 2) threads in each of which procedures are described for respectively processing the image data in n sub-regions obtained by dividing one inspection region on the image data stored in said memory and storing a processing result into said memory; and

a plurality of CPUs which executes said k sets of threads generated by said thread generator in parallel, respectively,

4

~~The appearance inspection apparatus according to claim 2,~~ wherein in each of said n threads, the procedure is described for executing a predetermined kind of image processing and another kind of image processing in succession.

7. (original) The appearance inspection apparatus according to claim 3, wherein in each of said n threads, the procedure is described for executing a predetermined kind of image processing and another kind of image processing in succession.

8-10. (canceled)

11. (currently amended) <u>An appearance inspection method comprising the steps of</u>:

<u>storing image data of an appearance of an inspection target in a memory;</u>

<u>generating k sets of n (k is a positive integer and n is an integer equal to or greater than 2) threads in which procedures are described for respectively processing the image data in n sub-regions obtained by dividing one inspection region on the image data stored in said memory and storing a processing result into the memory;</u>

<u>executing the generated k sets of said n threads in parallel;</u>

~~The appearance inspection method according to claim 10, said thread generating step further generates~~ <u>generating</u> m (m is

5

a positive integer) threads in each of which a procedure is described for collectively processing the image data in said n sub-regions [[,]]; and

~~said executing step further executes~~ executing said generated m threads in serial.

12. (original) The appearance inspection method according to claim 11, wherein said n and m are determined based on a kind of image processing to be executed or a size of said inspection region.

13. (original) The appearance inspection method according to claim 11, wherein said n and m are determined based on a result of an actual measurement of processing times executed under an arbitrary combination of n and m.

14. (currently amended) An appearance inspection method comprising the steps of:

storing image data of an appearance of an inspection target in a memory;

generating k sets of n (k is a positive integer and n is an integer equal to or greater than 2) threads in which procedures are described for respectively processing the image data in n sub-regions obtained by dividing one inspection region on the image data stored in said memory and storing a processing result into the memory;

executing the generated k sets of said n threads in parallel;

~~The appearance inspection method according to claim 10,~~ wherein in each of said n threads, the procedure is described for executing a predetermined kind of image processing and another kind of image processing in succession.

15. (original) The appearance inspection method according to claim 11, wherein in each of said n threads, the procedure is described for executing a predetermined kind of image processing and another kind of image processing in succession.

16. (canceled)